

## ARTICLE VI. PERFORMANCE STANDARDS

### Sec. 102-601: Purpose

The purpose of this Article is to indicate the requirements for access, visibility, off-street parking, off-street loading, exterior storage, exterior lighting, vibration, noise, air pollution, odors, electromagnetic radiation, glare and heat, fire and explosion, toxic and noxious materials, waste materials, drainage, exterior construction materials, and hazardous materials for all development occurring within the jurisdiction of this Title.

### Sec. 102-602: Compliance in All Zoning Districts

Any use established hereafter in any zoning district shall be so operated as to comply with the hazard prevention performance standards set forth in this Article as well as State and federal regulations unless otherwise specified.

Sec. 102-603: Reserved

Sec. 102-604: Reserved

Sec. 102-605: Reserved

### Sec. 102-606: Exterior Lighting Standards

- A. APPLICABILITY. All public and private outdoor lighting installed in the City of Sterling shall be in conformance with the requirements set forth in this section.
- B. General Design Factors:
- (1) Style: The style of the light and light standard shall be consistent with the architectural style of the principal building.
  - (2) Locations. No exterior light fixture may be located within three feet (3') of a property line.
  - (3) Base. The base for all lighting fixtures shall be no greater than six-inches (6") as measured from grade. Lighting fixtures shall be located inside landscape islands or behind curb lines and pavement edges for protection.
  - (4) Fixtures. All off-street lighting fixtures shall be ninety-degree (90°) down-cast, cutoff fixtures. Drop-lens fixtures are prohibited.
  - (5) Height: Fixture height shall be measured from grade to top of the fixture, including the base.
    - (a) Pathways, sidewalks, and trails shall be lighted with low level fixtures not to exceed twelve feet (12') in pole height.
    - (b) The total height of all fixtures for non-residential developments shall not exceed the lesser of twenty feet (20') or the ridge line of the principal structure.
    - (c) Multi-family residential lighting fixtures shall not exceed fifteen feet (15') in height.
  - (6) Lamps. Lamp-types and wattages shall be not be restricted regardless of application. The site must comply with the Lighting Level Standards and Requirements as specific in (c) below.
  - (7) Glare Control: All lighting shall include glare controls and shall be shielded. Floodlighting is discouraged, and if used, shall be shielded to prevent disability glare for drivers or pedestrians.
  - (8) Building Mounted Lighting. Building-mounted lighting may be used to highlight architectural features or illuminate primary customer or building entrances. General floodlighting or the neon outlining of building façades is not permitted.

## (9) Canopy Lighting.

- (a) The maximum average maintained foot-candles under a canopy shall be twenty (20) foot-candles. Areas outside the canopy shall be regulated by the standards in (c) below.
- (b) All canopy fixtures shall be recessed, incorporating a flat lens cover to shield against glare.

## C. Lighting Level Standards and Requirements:

- (1) Lighting Levels: Lighting shall be provided in accordance with the standards of the Illuminating Engineering Society of North America (IESNA) as follows for parking and pedestrian areas of all uses, with the exception of automotive sales establishments as specified in subsection (c)(2):

IESNA Levels of Activity		IESNA Maintained Horizontal Illuminance Standards (Foot-Candles)			
		Max.	Min.	Ave.	Uniformity Ratio
High	Major cultural events	10	0.9	3.6	4:1
	Regional shopping centers (retail space >100,000 SF)				
	Fast food facilities				
	Entertainment theaters				
Medium	Community shopping centers (retail space <100,000 SF)	10	0.6	2.4	4:1
	Office building parking				
	Hospital parking				
	Multi-family residential complex				
	Cultural, civic events				
	Recreational events Community centers				
Low	Transportation parking (commuter lots, etc.)	10	0.2	0.8	4:1
	Neighborhood shopping centers (retail space <5,000 SF)				
	Industrial business parking				
	Educational, civic, and institutional facilities				
	Single-family residential properties				

## (2) Lighting for Automotive Sales Establishments.

- (a) Lighting shall be provided in accordance with the standards of the Illuminating Engineering Society of North America (IESNA) as follows for automotive dealerships:

Areas Of Activity	Description	Footcandle Levels
Feature display area	The first row of vehicles adjacent to a major/minor arterial, including the area in front of the vehicle up to the property line and behind the vehicle up to the merchandise area and/or the circulation area including drive aisles.	Maximum of 40 fc
Merchandise area	All other rows of vehicles on a lot used for general auto sales, including all areas surrounding the vehicle up to the defined circulation area including related drive aisles, including site entrances.	Maximum of 10 fc
Circulation area	Includes all portions of the lot dedicated to customer parking, employee parking, and inventory areas including related drive aisles.	Maximum of 10 fc
Security lighting, Monday - Sunday	The average amount of light found on the entire site within each of the areas of activity, including the feature display area, merchandise area, and circulation area from 10:00 P.M. until sunrise.	Average of 10 fc

- (b) Height of Luminaire at Automotive Sales Establishments: The maximum height of a luminaire at an automotive sales establishment shall comply with the regulations outlined in subsection (b)(5) above.
  - (c) Drop lenses are prohibited from use on all car dealership luminaries. All existing dealerships using drop lenses at the time of adoption date hereof, will be considered legal nonconforming for the sole purpose of its lens type. All new or replacement fixtures shall have flat lenses that shield glare.
  - (d) Light shields used by car dealerships to control light and reduce glare shall be made of non-reflective material.
- (3) Lighting Levels at Property/Right-of-Way Lines: Exterior lighting shall be designed at or below the following average maintained foot-candles at the property/right-of-way line:

Location	Maximum Horizontal Footcandle (HFC) Level at Property/ROW Line
Residential to residential	0.10 hfc
Nonresidential to nonresidential	0.50 hfc
Nonresidential to residential	0.10 hfc
Intensity at adjoining right of way, including automotive sales establishments.	0.50 hfc

**D. Measuring Light Levels:**

- (1) Metering Equipment: Light levels of both direct and indirect light shall be measured in foot-candles with a direct reading, portable light meter. Readings shall be taken only after the cell has been exposed long enough to provide a constant reading.
- (2) Method of Measurement: Foot-candle horizontal measurements shall be taken at a height of three and one-half feet (3.5') above grade.
- (3) Measuring Average Foot-candle Levels. In determining the average foot-candle standard, all foot-candle measurements shall be taken from the ground at ten foot (10') increments throughout the areas of activity.

**E. Exceptions:** The following are exempt from the lighting requirements of this section, except that the Director of Community Services may take steps to eliminate the impact of the exempted items when deemed necessary to protect the health, safety and welfare of the public:

- (1) Lighting fixtures and standards required by the Federal Communications Commission, Federal Aviation Administration, Federal and State Occupational Safety and Health Administrations, or other federal or state agencies (to include streets, walkways, street lights, traffic signals and signage within public rights-of-way maintained by the City and/or IDOT)
- (2) Lighting fixtures for public recreation and athletic facilities, including ball diamonds, playing fields, tennis courts, and other outdoor recreational facilities shall be exempted from the general standards of this section. Lighting for outdoor recreational facilities shall be shielded to minimize light and glare from spilling onto adjacent residential properties. The maximum permitted illumination at adjoining residential property lines shall be one foot-candle. The maximum permitted illumination at adjoining nonresidential property lines shall be two (2) foot-candles. Lighting fixtures for private recreation and athletic facilities may be approved by special use.
- (3) Illumination of flags of the United States, the State of Illinois, or a principal business or corporation provided such lighting does not exceed 100-watts and is focused primarily on the individual flag or flags.

- (4) Temporary emergency lighting used by police, firefighters, and other emergency services, as well as all vehicular luminaires shall be exempt.
- F. Nonconforming Luminaires: Exterior lighting luminaires in existence on the effective date of this section shall be exempt from the standards of this section and shall be considered legally nonconforming. Such fixtures may be repaired and maintained. However, if any legal nonconforming luminaire is moved or damaged by any means to an extent that replacement is necessary, the luminaire, or replacement, shall comply with this section. At such time as sixty-percent (60%) of the existing fixtures on-site are replaced, full compliance for all fixtures shall be required. For development activity involving improved property, all existing luminaires shall be required to comply with this section when the floor area of any building or structure, or parking areas, or any combination thereof, is increased by forty-percent (40%) or greater.
- G. Exterior Lighting Plan Required:
- (1) A lighting plan shall be required any time exterior lighting is proposed, or modified, that is associated with a residential use of greater density than a one- or two-family dwelling or with any commercial, office, industrial or other use. The lighting plan shall be submitted with the site plan information as required in this title.
- (2) The lighting plan shall include a site plan indicating: the location, height, type, design, orientation, anchorage, and wattage of all proposed of light fixtures; a photometric plan prepared by a lighting professional showing spot illumination levels at regularly spaced intervals on the lot and at all lot lines and average proposed illumination levels on the site; a summary table containing average foot-candles, minimum foot-candles, maximum foot-candles, uniformity ratio (average/minimum), catalog cuts of the proposed fixtures. The plan shall also contain a certification by the property owner or agent and the preparer of the plan that the exterior lighting depicted on the plan complies with the requirements of this Article and the criteria of the Illuminating Engineering Society of North America (IESNA) recommendations for outdoor lighting. Once the plan is approved, the exterior lighting of the property shall conform to the plan.

**Sec. 102-607: Erosion Control**

The disturbing of land and land developing activities within the boundaries and jurisdiction of the City and the public and private lands subject to extraterritorial review shall comply with the regulations outlined in Title III of Chapter 80 of the Municipal Code.

**Sec. 102-608: Reserved**

**Sec. 102-609: Reserved**

**Sec. 102-610: Vibration Standards**

- A. MEASUREMENT. Earth-borne vibrations are measured with a seismograph or accelerometer and are measured in three (3) mutually perpendicular directions (one (1) vertical and two (2) horizontal). Vibration shall be measured at the site boundary lines. All uses shall conform to the standards set forth in this section.
- B. PERMITTED STEADY VIBRATION DISPLACEMENT. Except temporary construction activities and agricultural activities, no activity shall cause or create a displacement greater than the permitted steady state vibration displacement for the frequencies set forth in Table 7.1.

**TABLE 7.1: MAXIMUM PERMITTED STEADY CONDITION VIBRATION DISPLACEMENT**

Frequency (cycle per second)	Vibration Displacement (inches)
10 and below	.0008
10--20	.0005
20--30	.0003
30--40	.0002
40 and over	.0001

- C. **IMPACT VIBRATIONS.** For impact vibrations, the maximum permitted vibration displacement shall be twice that permitted for steady state vibrations.
- D. **TEMPORARY CONSTRUCTION ACTIVITIES EXEMPT FROM REQUIREMENTS.** Vibrations resulting from temporary construction activity that occurs between 7:00 a.m. and 8:00 p.m. shall be exempt from the requirements of this section if steady state vibrations and impact vibrations shall not exceed twice the permitted displacement for permanent operations.
- E. **PROHIBITION ON VIBRATIONS BEYOND PROPERTY BOUNDARIES.** Except temporary construction activities, no activity shall be permitted which creates a vibration beyond the boundaries of the site of the activity sufficient to cause a displacement of 0.003 of one (1) inch.
- F. **PUBLIC NUISANCE PROHIBITED.** In no case shall vibrations be allowed to create a public nuisance or hazard beyond the property boundaries.

**Sec. 102-611: Noise Standards**

- A. **MEASUREMENT OF NOISE.** Noise shall be measured using a sound level meter meeting the standards of the American National Standards Institute's (ANSI S1.4-1983 as amended) "American Standard Specification for General Purpose Sound Level Meters." The instrument shall be set to the A-weighted filter response scale and the meter to the slow response. Measurements shall be conducted in accord with ANSI S1.2-1962 "American Standard Method for the Physical Measurement of Sound." Measurements of sound may be made at any point along a district boundary or site boundary line of the noise generating property. For measuring impact sounds, however, the impact sound shall be measured using the fast response of the sound level meter. Traffic, aircraft, and other background noises must not be considered in measuring noise levels unless the background noise is a part of the noise being measured.
- B. **EXEMPTIONS FROM STANDARDS OF THIS SECTION.** Noises exempt from the requirements of this section include the following:
- (1) Noises of vehicles to the standard noise reduction of manufacturer's specifications.
  - (2) Home appliances.
  - (3) Chain saws, lawnmowers, and snow blowers in private use (not commercial repair services).
  - (4) Occasionally used safety signals, warning and emergency signals, and emergency pressure relief valves.
  - (5) Unamplified human voice.
  - (6) Bells or chimes.
  - (7) Temporary construction operations.

- C. **MAXIMUM PERMITTED SOUND LEVELS IN ALL ZONING DISTRICTS.** At no point either on the boundary of a zoning district or site boundary line shall the sound level of a use exceed the decibel level shown in Table 7.2 for the zoning districts indicated.
- D. **INCREASES TO MAXIMUM PERMITTED SOUND LEVELS.** The sound levels set forth in Table 7.2 may be exceeded by ten (10) dBA for a single period, not to exceed fifteen (15) dBA in any one (1) day except in the LM, GM, PIO, and PUD (business and industrial uses only) Districts.
- E. **IMPACT NOISES.** For impact noises, the sound levels set forth in Table 7.2 may be increased by ten (10) dBA, in the GM, HM, PIO, and industrial PUD Districts.

**TABLE 7.2: MAXIMUM PERMITTED SOUND LEVELS IN dBA BY ZONING DISTRICT**

Zoning District	Maximum Permitted Sound Level	
	Monday through Saturday	Sunday
	8pm – 7am	6pm – 8am
All Residential, NB, and DB Districts	67 dBA	67 dBA
CB, RB, BP, and MU Districts	67 dBA	65 dBA
LM and PIO Districts	70 dBA	65 dBA
GM and HM Districts	75 dBA	65 dBA
HPO, RFO, and TBO Districts	As Per Underlying Zoning District.	
SWO, FPO, and CO Districts	55 dBA	55 dBA

- F. **CREATION OF EXCESSIVE NOISE IN AREAS ADJACENT TO NOISE-SENSITIVE AREAS PROHIBITED.** The creation of, or causing the creation of, any sound adjacent to any noise-sensitive area, containing a hospital, nursing home, school, court or other designated area, to exceed the specified land use noise standards set forth in this section and to interfere with the functions of such activity or unreasonably annoy the occupants in the activity, is prohibited, if conspicuous signs are displayed indicating the presence of the noise-sensitive area.
- G. **OCCASIONAL OUTDOOR ACTIVITIES EXEMPTED.** The provisions of this section shall not apply to occasional outdoor gatherings, shows, and sporting and entertainment events (excluding regularly scheduled school athletic events), provided the events are conducted pursuant to any permits issued by the City of Sterling concerning the event. A temporary use permit is required from the City for such exempt activities.
- H. **HIGHWAY NOISE.** The purpose of these regulations is to guide the development of noise sensitive land uses (such as homes, schools and recreational areas) abutting to highway corridors and to ensure that any such development that does occur is planned to mitigate the adverse effects of noise. The standards contained are based on the requirements for development of the best possible urban environment outlined by the American Society of Civil Engineers, American Public Health Association, National Recreational Association, American Association of State Highway Officials, Institute of Transportation Engineers, Federal Emergency Management Administration, American Society of Planning Officials Reports, Illinois Administrative Code, and the Federal Highway Administration's Procedures for Abatement of Highway Traffic Noise and Construction Noise, Title 23, CFR, Chapter I, Subchapter H, Par.722. In general, residential subdivisions will be encouraged to provide generous distances between building sites and existing industries and between building sites and high capacity streets, highways, expressways, and freeways to act as buffers against noise and noxious fumes. Residential subdivisions will also be discouraged from locating too close to existing or proposed airport approach zones.

(1) General Provisions.

- (a) These provisions shall apply to unplatted lands abutting to any existing state or federal roadway for which a preliminary plat approval was not previously granted. These provisions shall not apply to structures existing at the time of adoption of this ordinance.
- (b) No owner of any unplatted lands which is abutting to any existing state or federal roadway and for which a preliminary plat approval was not previously granted, shall be granted final plat approval or shall commence or cause to be commenced construction of any structure, unless approved by the Plan Commission and Common Council.
- (c) Prior to approval of any preliminary plat, final plat or commencement or construction of any structure, every application for approval shall be submitted in writing to the Building & Zoning Superintendent by the owner of the land on which the structure is proposed to be constructed and shall contain the following information:
  - (i) Identification of the land on which the construction is proposed;
  - (ii) The section under which approval is requested;
  - (iii) The information and data supporting the claim that the appropriate requirements shall be met including specific enumerations that the Federal Highway Administration's Procedures for Abatement of Highway Traffic Noise and Construction Noise, Title 23, CFR Chapter I, Subchapter H, Part 772 provisions, shall be met and any other information which the City may require.
  - (iv) Certification by an engineering or other qualified testing firm that hourly traffic sound levels  $Leq(h)$  as hereinafter indicated, are within permissible levels or that appropriate sound attenuation measures are incorporated into the design and construction of any structures to satisfy the highway noise provisions within this ordinance.
- (d) In addition to the requirements contained in subsection (a)(iii) above, the application shall also contain the following information as well as any other information bearing on the approval:
  - (i) The existing maximum hourly traffic sound level,  $Leq(h)$ , for a representative sample of locations, measured in accordance with guidelines presented in "Sound Procedures for Measuring Highway Noise: Final Report," August 1981, U.S. Department of Transportation, Federal Highway Administration, Arlington, VA, or modeled according to a methodology in the FHWA Highway Traffic Noise Prediction Model (Report No. FHWA-RD-77-108);
  - (ii) The projected future  $Leq(h)$  at the site resulting from future traffic increases; and
  - (iii) Where applicable, plans for sound attenuation measures on the site and/or of the structure proposed to be built and the amount of sound attenuation anticipated as a result of these measures.

(2) Construction concerns for residential and institutional structures.

- (a) New residential or institutional structures approved for construction, where the exterior hourly traffic sound level  $Leq(h)$  within a proposed outdoor living area is projected to be equal to or in excess of 67 dBA upon completion of the structure, should evaluate opportunities to mitigate noise levels.
- (b) Prior to issuance of any building permit for any structure regulated pursuant to this subsection, the City may require submission of plans and specifications to the Illinois Department of Transportation (IDOT) for review. The City or IDOT may conduct such inspections and measurements as are necessary to ensure the proper implementation of traffic sound mitigation measures.

(3) Remedies. Failure to comply with the requirements of this section may invalidate purported transfers of titles at the option of the purchaser in accordance with provisions of Illinois Plat Act.



Building permits may also be refused for construction on sites created in violation of these requirements.

**Sec. 102-612: Glare of Standards**

- A. MEASUREMENT OF GLARE. Glare illumination levels shall be measured with a photoelectric photometer having a spectral response similar to that of the human eye, using the standard spectral luminous efficiency curve adopted by the International Commission on Illumination. Illumination levels shall be measured in foot-candles with a direct-reading, portable light meter. The meter shall have a color and cosine-corrected sensor with multiple scales and shall read within an accuracy of plus or minus five (5) percent. It shall have been tested, calibrated, and certified by an independent commercial photometric laboratory or the manufacturer within one (1) year of the date of use.
- B. GLARE STANDARDS. All uses shall conform to the following minimum standards:
- (1) Maximum illumination increase. Any operation or activity producing glare shall be conducted so that direct or indirect illumination from the source of light shall not cause an illumination increase greater than 0.2 foot-candles as measured at a location beyond the site boundary line as measured during the day or at night.
  - (2) Flickering and intrinsically bright sources of illumination. Flickering and intrinsically bright sources of illumination, even if meeting the standard set forth in paragraph (1) above, shall be controlled by luminaire shielding or aiming the light source away from roads and nearby sites. Exposed sources of light shall be shielded so as not to exceed the outdoor lighting standards set forth in Section 102-606.
  - (3) Reflective materials that cause glare prohibited. Reflective roofs, sidings, and building surfaces including reflective glass shall not be permitted except solar heating devices.
- C. EXCEPTIONS. Solar energy systems regulated by 765 ILCS 165 shall be entitled to the protection of its provisions.
- D. DECLARATION OF PUBLIC NUISANCE. Any operation producing intense glare shall be done within a completely enclosed building and effectively screened as not to create a public nuisance or hazard along property boundaries.

**Sec. 102-613: Heat Standards**

- A. LOCATION. Any activity producing intense heat shall be conducted within an enclosed building as not to raise the temperature of the air beyond the site boundary line.
- B. INCREASES IN HUMIDITY IN THE FORM OF STEAM OR MOIST AIR FROM COOLING TOWERS OR EQUIPMENT. Increases in humidity in the form of steam or moist air from cooling towers or equipment shall be controlled so that they do not create an ice hazard. Cooling towers shall be controlled by either reheating the plume or using a closed system.
- C. STANDARDS. There shall be no transmission of heat or heated air so as to be discernible (by a healthy observer such as the Building & Zoning Superintendent or a designee) at the lot line.
- D. DECLARATION OF PUBLIC NUISANCE. Any operation producing intense heat or humidity shall be done within a completely enclosed building and effectively screened as not to create a public nuisance or hazard along property boundaries.

**Sec. 102-614: Fire and Explosion Standards**

Fire and explosive hazards shall be controlled as set forth in this section. All activities involving the manufacturing, utilization, processing or storage of inflammable and explosive materials shall be provided with adequate safety devices against the hazards of fire and explosion and with adequate fire-fighting and



fire suppression equipment and devices that are standard in the industry. All such activities shall be in compliance with Illinois State Statutes, applicable Illinois Administrative Codes and Municipal Codes of the City of Sterling. When such activities are not specifically governed by law, the most current standards of NFPA (National Fire Code Standards) shall apply.

- A. **STORAGE OR MANUFACTURE OF MATERIALS OR PRODUCTS THAT DECOMPOSE BY DETONATION NOT PERMITTED.** Activities involving the storage or manufacture of materials or products that decompose by detonation (e.g. – ammonium nitrate, TNT, nitroglycerin) are not permitted unless licensed by the City of Sterling. If such activities are permitted by City of Sterling license, such activities shall take place exclusively in the LM, GM, HM, PIO, or industrial PUD Districts.
- B. **STORAGE, USE, OR MANUFACTURE OF MATERIALS RANGING FROM FREE TO ACTIVE BURNING MAY BE PERMITTED WITH CONDITIONS.** The storage, use, or manufacture of materials ranging from free to active burning--as determined by the Building & Zoning Superintendent is permitted in the HM Districts (storage only in the LM and GM District, and may be permitted by the Building & Zoning Superintendent in the PIO District or an industrial PUD District) under the following conditions:
- (1) **Location.** All storage, use, or manufacture of such materials or products shall be within completely enclosed buildings or structures having noncombustible exterior walls.
  - (2) **Setbacks and Fire Protection.** All materials shall be setback a minimum of four-hundred (400) feet from any residential or commercial district or use, except that this standard shall not apply to the storage or usage of liquefied petroleum or natural gas for normal residential or business purposes. All activities and storage of flammable and explosive materials at any point shall be provided with adequate safety and fire-fighting devices in accordance with all fire prevention codes of the National Fire Protection Association, the State of Illinois, and this Code.
  - (3) **Noncombustible to moderate burning materials.** The storage, use, or manufacture of materials ranging from noncombustible to moderate burning, as determined by the Building & Zoning Superintendent, is permitted.
  - (4) **Materials or products that produce flammable or explosive vapors.** Materials or products that produce flammable or explosive vapors or gases under ordinary weather temperatures shall not be permitted, except the following, which are permitted:
    - (a) Materials required for emergency or standby equipment.
    - (b) Materials used in secondary processes that are auxiliary to a principal operation, such as paint-spraying of finished products.
    - (c) Flammable liquids and oils stored, sold, and used with the operation of an automobile service station and customarily required or used in such operation.
  - (5) **Manufacture, possession, storage, transportation, and use of hazardous materials.** All manufacture, possession, storage, transportation, and use of hazardous materials that include explosives and blasting agents, flammable and combustible liquids, liquefied petroleum gas, and hazardous chemicals shall be required to comply with all applicable state and local fire codes or as set forth in the most current edition of the NFPA Fire Protection Handbook as amended, whichever is stricter.
  - (6) **No storage allowed within 100-year recurrence interval floodplain.** Any permitted structural storage facilities for chemicals, explosives, buoyant materials, flammable liquids and gases, or other toxic materials that could be hazardous to public health or safety, shall be located at elevations a minimum of four (4) feet above the 100-year recurrence interval flood elevation.

<b>Sec. 102-615:</b>	<b>Reserved</b>
<b>Sec. 102-616:</b>	<b>Reserved</b>
<b>Sec. 102-617:</b>	<b>Reserved</b>
<b>Sec. 102-618:</b>	<b>Reserved</b>
<b>Sec. 102-619:</b>	<b>Reserved</b>

**Sec. 102-620: Air Pollution, Contaminants, and Smoke**

A. SMOKE AND PARTICULATE MATTER. The provisions of paragraphs (1) and (2) below shall not apply in the case of an equipment breakdown that makes compliance not reasonably possible, and shall not apply to residential interior fireplaces, to home barbecues and firepits, campfires on legal campgrounds, and to burning incidental to agricultural operations for clearing land, but not for waste disposal.

(1) Measurement of smoke emissions. Smoke emissions shall be measured by using the Ringelmann Chart, as adopted and published by the United States Department of the Interior, Bureau of Mines Information Circular 8333, May 1967, on which are illustrated graduated shades of gray for use in estimating the light-obscuring capacity of smoke. All uses shall conform to the following standard.

(a) The density of smoke shall be measured at the point of emission, except when the point of emission cannot be readily observed.

(b) The smoke may be measured at an observable point on the plume nearest the point of emission.

(2) Established requirements not to be exceeded. No person or activity shall emit any fly ash, dust, fumes, vapors, mists, or gases in such quantities to substantially contribute to exceeding the established requirements of the City of Sterling, Whiteside County, State of Illinois, or Federal air pollution standards set forth by the U.S. Environmental Protection Agency. In case of conflict, the most restrictive requirements shall govern.

(3) Maximum amount of particulate matter on a single site. Emission of particulate matter from all sources shall be included in the maximum amount permitted for a single site as prescribed by the requirements of the agencies and regulations cited in paragraph (2) above.

(4) Wind-borne particulate matter. Emission of particulate matter from materials or products subject to becoming wind-borne from such sources as storage areas, yards, roads, and so forth, within lot boundaries, shall be kept to a minimum by landscaping, paving, wetting, or other means not violating any other applicable laws or regulations to render the surface wind-resistant.

(5) Maximum smoke units. No stack shall emit more than ten (10) smoke units during any one (1) hour, nor shall smoke of a density greater than Ringelmann No. 2 be emitted, if during a single one (1) hour period in each twenty-four (24) hour day, each stack may emit up to twenty (20) smoke units when blowing soot or cleaning fires, and during such cleaning of fires, smoke of a density of Ringelmann No. 3 may be emitted, but for not more than four (4) minutes each period except a plume consisting entirely of condensed steam.

(6) Declaration of public nuisance. In addition to the performance standards specified herein, the emission of smoke or particulate matter in such manner or quantity as to be detrimental to or endanger the public health, safety, comfort, or welfare is hereby declared to be a public nuisance.

B. TOXIC AND NOXIOUS MATTER. All uses shall conform with the following standards.

(1) Ambient air quality standards. The ambient air quality standards of the State of Illinois and the U.S. Environmental Protection Agency, or any other federal agency having jurisdiction shall limit the release of airborne toxic and noxious materials. In case of conflict, the most restrictive requirements shall govern.

(2) Toxic materials not included in ambient air quality standards. When toxic materials are not included in the ambient air quality standards of the State of Illinois, the U.S. Environmental Protection Agency, or any other federal agency, the release of such materials shall not exceed one one-fortieth ( 1/40) of the threshold limit value across site boundary lines of those toxic materials currently listed

in the "Threshold Limit Values" adopted by the American Conference of Governmental Industrial Hygienists. Unless otherwise stated, the measurement of all toxic and noxious matter shall be at ground level or habitable elevation, and shall be the average of a twenty-four (24) hour sampling period. The City of Sterling may request that an applicant submit a statement from the Illinois Department of Public Health that the proposed levels of toxic matter to be released will not result in any hazard to human life or health or to wildlife.

- (3) Discharge across property boundaries prohibited. No use on any property shall discharge across the boundaries of said property toxic or noxious matter in such concentrations as to be detrimental to or endanger the public health, safety, comfort, or welfare, or cause injury or damage to other property or business.

**Sec. 102-621: Water Quality Protection**

No activity shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature, quantity, obnoxiousness, toxicity, or temperature except in accordance with Article II: Sewers of Chapter 94 of the Municipal Code and as set forth by the Illinois Department of Public Health.

**Sec. 102-622: Odor**

- A. APPLICABILITY. This section is applicable to all zoning districts and uses.
- B. GENERATION OF ODOR. Any use in any district may generate any odor that reaches the "Odor Threshold Concentration" or does not exceed the lowest amount set forth in Table III, "Odor Thresholds," of Chapter 5, "Physiological Effects," of the Air Pollution Abatement Manual of the Manufacturing Chemists Association, according to the latest edition of such tables for the compounds therein described. For compounds not described in Table III, odor thresholds may be established by methods shown in Chapter 5 of the manual. No odor shall be permitted at any lot line exceeding the amount determined by the application of such methods as measured at:
- (1) Two or more uses occupying a single lot or parcel of land. The outside boundary of the immediate space occupied by the use generating the odor.
  - (2) Single use lot or parcel of land. The lot line of the use generating the odor if said use is the only use on the lot.
- C. PUBLIC NUISANCE OR HAZARD PROHIBITED. The emission of odorous matter from any property in such concentrations at any point along the boundaries of said property or in such concentrations as to create a public nuisance or hazard beyond such boundaries is prohibited.

**Sec. 102-623: Radioactivity**

- A. APPLICABILITY. All land uses shall conform to the following specified standards concerning radioactivity.
- B. MAXIMUM CONCENTRATIONS OF RADIOACTIVITY PERMITTED. The maximum permissible concentrations of radioactivity that can be released shall be subject to the regulations of the State of Illinois, the U.S. Atomic Energy Commission, and any other federal agency having jurisdiction. In the case of conflict, the most restrictive requirements shall govern.
- C. STORAGE OF RADIOACTIVE MATERIALS. Radioactive materials shall be stored in fireproof containers made of steel and concrete, but shall not be stored in containers made of lead or other low melting metals or alloys unless completely encased in steel.
- D. MEDICAL SOURCES OF RADIATION RESIDUES. Medical sources of radiation residues, such as X-ray machines, gamma and neutron sources, and pharmaceutical isotopes used for diagnostic and therapeutic purposes, shall be permitted when located within a hospital, clinic, medical or dental office,

or medical research facility. Other uses of radioactive materials shall be limited to measuring in X-ray and similar apparatus, and concerning the processing and preservation of food.

**Sec. 102-624: Electrical Disturbance, Interference, and Electromagnetic Fields**

- A. **APPLICABILITY.** In all zoning districts, no use, activity, or process shall be conducted which produces electric and/or magnetic fields or radiation that adversely affects public health, safety, and welfare including but not limited to interference with normal radio, telephone, or television reception from off the premises where the activity or process is conducted or the use is located.
- B. **MINIMUM STANDARDS FOR ELECTROMAGNETIC RADIATION.** Where electrical systems are planned to be established which are either equal to or exceed a level of electromagnetic radiation of sixty (60) Hertz (Hz), the following standards shall be applicable:
- (1) Environmental and health assessment reports required. Environmental and health assessment reports of such proposed systems shall be prepared at the expense of the developer of such systems. An electromagnetic field mitigation plan shall be a component of all such reports.
  - (2) Location of residential land uses and places of assembly. No residential land uses or places of assembly shall be allowed to be sited in areas exposed to four (4) or more milligauss of sixty (60) Hertz (Hz) electromagnetic fields.

**Sec. 102-625: Chemical, Asbestos, and Other Hazardous Material Storage**

The following standards shall apply to chemical, asbestos, or other hazardous materials or wastes use and/or storage:

- A. **LOCATION.** Any activity involving chemical, asbestos, or other hazardous materials or wastes use or storage shall be conducted within an enclosed building.
- B. **TRANSFER OFF PARCEL BY NATURAL CAUSES OR FORCES PROHIBITED.** No chemical, asbestos, or other hazardous materials or wastes shall be deposited upon a parcel in any zoning district in such form or manner that they may be transferred off the parcel by natural causes or forces.
- C. **OUTDOOR STORAGE PROHIBITED.** In all zoning districts no chemical, asbestos, or other hazardous materials or wastes that might cause fumes, dust, or which are a fire hazard or which may be edible by or otherwise attractive to rodents or insects shall be stored outdoors.
- D. **PUBLIC NUISANCE PROHIBITED.** In no zoning district shall the storage of chemical, asbestos, or other hazardous materials or wastes be allowed to create a public nuisance or hazard beyond the property boundaries.
- E. **COMPLIANCE WITH ALL FIRE AND BUILDING CODES FOR HAZARDOUS MATERIALS USE AND STORAGE.** In all zoning districts uses involving the storage of chemicals, asbestos, or other hazardous materials or wastes shall be designed to comply with all fire and building codes for the hazardous materials use and storage, and adequate precautions using the best available technology shall be taken to protect against negative off-site impacts of a hazardous materials release.
- F. **HAZARDOUS MATERIALS IMPACT ANALYSIS REQUIRED.** In all zoning districts where chemical, asbestos, or other hazardous materials or wastes are used or stored, a hazardous materials impact analysis shall be required to determine potential off-site impacts and required mitigation precautions. Said hazardous materials impact analysis shall be submitted to the Plan Commission for its review and consideration.

**Sec. 102-626: Reserved**  
**Sec. 102-627: Reserved**  
**Sec. 102-628: Reserved**  
**Sec. 102-629: Reserved**

**Sec. 102-630: Solar Energy System Standards**

- A. **PURPOSE.** The City of Sterling finds that diminishing supplies of nonrenewable energy resources threaten the physical and economic well-being of the residents of this community who presently rely on such resources to maintain their homes, industries, businesses, and institutions. The purpose of this section is to promote the use of solar energy systems and to ensure that such systems are constructed and installed in a manner that protects public and property owner safety.
- B. **PERMITS.**
- (a) **Zoning Permit.** A zoning permit shall not be required for the installation or construction of a solar energy system.
  - (b) **Building Permit.** A building permit issued by the Building & Zoning Superintendent shall be obtained prior to construction of a solar energy system to ensure compliance with the International Building Code.
  - (c) **Plumbing Permit.** A plumbing permit issued by the Building & Zoning Superintendent shall be obtained prior to construction of a solar energy system to ensure compliance with 765 ILCS 165 and the Illinois State Plumbing Code.
  - (d) **Electrical Permit.** An electrical permit issued by the Building & Zoning Superintendent shall be obtained prior to construction of a solar energy system to ensure compliance with the National Electrical Code.
- (2) **APPLICATION REQUIREMENTS.** A petition to construct or install a solar energy system shall include the following:
- (a) Location of all underground utility lines on the property where a solar energy system site is proposed.
  - (b) Dimensional representation of the structural components of the supports or tower construction, including the base and footings.
  - (c) Schematic of electrical systems associated with the solar energy system including all existing and proposed electrical connections.
  - (d) Manufacturer's specifications and installation and operation instructions or specific photovoltaic design information, including model and installation instructions.
  - (e) Certification by a registered professional engineer or structural engineer that the solar energy system design is sufficient to withstand wind load requirements for structure as defined in the International Building Code.
- (3) **GENERAL PERFORMANCE STANDARDS.** All solar energy systems shall be subject to the following requirements to ensure public safety:
- (a) **Support or Tower Construction.** Guyed or lattice towers or supports are expressly prohibited. All towers and supports shall be structurally designed to withstand 100mph winds and handle loads imparted.
  - (b) **Access.** All ground mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
  - (c) **Electrical Wires.** All electrical wires associated with a solar energy system, other than wires necessary to connect the photovoltaic to the support or tower wiring, the support or tower wiring

to a disconnect junction box, and the grounding wires shall be located underground. All wires and connections shall be wholly located on the subjects property.

- (d) Utility Notification and Interconnection. solar energy systems that connect to the electric utility shall comply with the Distributed Generation Interconnection Standard.

(e) Required Safety Features

- (i) All solar energy systems shall have a manually operable method to render the system inoperable in the event of a structural or mechanical failure of any part of the system.
- (ii) All solar energy systems shall be designed with an automatic control to render the system inoperable in case of loss of utility power to prevent the solar energy systems from supplying power to a de-energized electrical distribution system.
- (iii) Any solar energy systems thereof declared to be unsafe by the Building & Zoning Superintendent by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures set forth in the Municipal Code.

#### **Sec. 102-631: Geothermal Standards**

A. PURPOSE. The City of Sterling recognizes the environmental benefits associated with the use of geothermal/ground source heat pump (GSHP) systems for heating and cooling. GSHP systems offer the benefit of reduced generation of air pollution (including greenhouse gases) in comparison with conventional heating and cooling systems. The potential environmental and human health risks associated with an accidental release of the GSHP fluids that are permitted under this Section are relatively low. The main goal of these guidelines is to have GSHP wells and systems sited in a manner that will not adversely affect abutting properties and that are installed in a manner that will not provide potential contaminant pathways that would allow surface runoff to enter groundwater aquifers or the transfer of natural or man-made contamination between two different aquifers or between aquifers and surface water bodies. An additional goal of these guidelines is to minimize the potential for subsurface system leaks.

#### **B. TYPES OF SYSTEMS AND TYPICAL ARRANGEMENT**

- (1) Closed-Loop System – Horizontal. Horizontal ground source heat pump installation is generally most cost-effective for residential installations, particularly for new construction where sufficient land is available. It requires trenches at least four feet deep. The most common layouts either use two pipes, one buried at six feet, and the other at four feet, or two pipes placed side-by-side at five feet in the ground in a two-foot wide trench. The method of looping pipe allows more pipe in a shorter trench, which cuts down on installation costs and makes horizontal installation possible in areas it would not be with conventional horizontal applications.
- (2) Closed Loop System – Vertical. Vertical systems are often used for large commercial buildings and schools because the land area required for horizontal loops would be prohibitive. Vertical loops are also used where the soil is too shallow for trenching, and they minimize the disturbance to existing landscaping. For a vertical system, holes (approximately four inches in diameter) are drilled about 20 feet apart and 100 to 400 feet deep. Into these holes go two pipes that are connected at the bottom with a U-bend to form a loop. The vertical loops are connected with horizontal pipe (i.e., manifold), placed in trenches, and connected to the heat pump in the building.
- (3) Closed Loop System - Pond/Lake. The coils are placed in an open water source (pond or lake) that meets minimum volume, depth, and quality criteria. A supply line pipe is run underground from the building to the water source and coiled into circles at least eight feet under the surface to prevent freezing.
- (4) Open-Loop System. This system uses a well or surface water body such as a pond or lake as the heat exchange fluid that circulates directly through the ground source heat pump system. Once the

water has circulated through the system, it returns to the ground through the well, a recharge well, or surface discharge. This option is only practical where there is an adequate supply of relatively clean water, and all regulations regarding groundwater discharge are met.

- C. PROHIBITIONS. GSHP wells or systems shall not be located, constructed, or operated in a manner that will cause further degradation of aquifers, wetlands, or surface water bodies.
- D. UNDERGROUND INJECTION CONTROL REQUIREMENTS. The federal Underground Injection Control (UIC) Program regulates every injection of fluid into the subsurface.
- (1) United States Environmental Protection Agency (USEPA). All wells and systems shall comply with the regulations outlined in 40 CFR 144.26.
  - (2) Illinois Department of Public Health (IDPH). All wells and systems shall comply with the regulations outlined in Title 77 of the Illinois Administrative Code.
- E. CONSTRUCTION.
- (1) Plan Submittal. The owner/operator/installer of the GSHP system shall submit to the City a BSO Plan and comply with the regulations outlined in Section 102-924. All construction plans must be designed and stamped by a professional engineer licensed in the State of Illinois or an individual that is certified by the International Ground Source Heat Pump Association (IGSHPA).
  - (2) Required Permits/Approvals.
    - (a) A City of Sterling Zoning Permit shall be required as outlined under Section 102-910.
    - (b) A City of Sterling Building Permit shall be required as outlined under Chapter 18 of the Municipal Code.
    - (c) The owner/operator/installer of the GSHP system shall submit to the Building & Zoning Superintendent approval for the system by the IDPH.
  - (3) Prior to Construction. Prior to the construction of a GSHP system, the owner/operator/installer must submit to the IDPH a notification of intent to construct. This notification requirement includes GSHP systems that do not include the use of wells.
  - (4) Contractors.
    - (a) Well Drilling. Only contractors complying with 77 Ill. Adm. Code Part 915 shall be permitted to construct, alter, or decommission wells for geothermal heating and cooling systems.
    - (b) Plumbing. All plumbing installation/modification shall be performed by a licensed Illinois plumber.
    - (c) GSHP Equipment. The installation or modification of all GSHP equipment shall be performed by an individual certified by the IGSHPA.
  - (5) Materials.
    - (a) The use of refrigerants, antifreeze chemicals, and lubricating oils is prohibited in water that is returned to the subsurface via open-loop GSHP systems.
    - (b) The use of plasticizers in grout used in well construction is prohibited for open-loop GSHP wells.
    - (c) The following are the only currently IDPH approved refrigerants, plasticizers, antifreeze, lubricating oils, and corrosion inhibitors that are allowed for closed-loop GSHP wells.
      - (i) Propylene glycol and ethanol are acceptable antifreeze additives for closed-loop systems. All other antifreeze chemicals must be approved by IDPH prior to use.
      - (ii) Food grade lubricating oils are acceptable for closed-loop and direct exchange wells. Direct exchange wells may also use polyester as a lubricant. All other lubricating chemicals or oils must be approved by IDPH prior to use.



- (iii) R-22 refrigerant and its EPA recommended substitutes R-407C and R-410A are acceptable for use in direct exchange systems. All other refrigerants must be approved by IDPH prior to use.
  - (iv) Sodium naphthalene sulfonate conforming to ASTM C 494 Type F is an acceptable plasticizer for use in grouts that contain cement. Plasticizers shall not be used for the construction of GSHP wells that will also serve as sources of potable water.
  - (v) Corrosion inhibitors must be approved by IDPH prior to use.
- (6) Location on Property.
- (a) Wells.
    - (i) Open-loop GSHP wells that also serve as potable water supply wells shall meet the location requirements outlined in 77 Ill. Adm. Code Part 920.
    - (ii) Open-loop GSHP wells that do not also serve as a potable water supply source shall be sited at least 25 feet from existing and potential sources of contamination including, but not limited to septic tanks/fields, lagoons, livestock pens, and oil or hazardous materials storage tanks.
    - (iii) Closed-loop and direct exchange wells shall also be sited at least 25 feet from these potential sources of contamination.
    - (iv) Closed-loop and direct exchange wells shall be sited at least 50 feet from private potable water supply wells.
    - (v) Closed-loop and direct exchange wells shall not be permitted within the Zone 1 of public water supply wells.
    - (vi) An open-loop GSHP well that does not also serve as a public water supply well shall not be permitted within the Zone 1 of a public water supply well.
    - (vii) Closed-loop and direct exchange wells shall be sited at least 10 feet from surface water bodies.
  - (b) No GSHP appurtenances shall be permitted to be located with the required setbacks for the parcel on which it is sited.

#### **Sec. 102-632: Small Wind Energy Conversion Systems**

Small Wind Energy Conversion Systems (SWECS) in the City of Sterling shall be subject to the following regulations to preserve and protect public health and safety without significantly increasing the cost or decreasing the efficiency of a small wind energy system. No person shall construct or operate a SWECS without having fully complied with the provisions of this Section.

**A. Permits Required:**

- (1) A building/zoning permit shall be obtained to allow construction of a SWECS.
- (2) A SWECS permit shall be obtained from the City Code Enforcement Department for the construction of all SWECS.

**B. Application Requirements.** An application for a permit to build a wind energy system shall include the following:

- (1) Property lines and physical dimensions of the property of the proposed construction site.
- (2) Proposed location of the SWECS.
- (3) Location and description of all structures located on the property where the WECS site is proposed.
- (4) Location of all above-ground utility lines within a radius equal to two (2) times the height of the proposed SWECS.

- (5) Location of all underground utility lines on the property where a SWECS site is proposed.
  - (6) Dimensional representation of the structural components of the tower construction including the base and footings.
  - (7) Schematic of electrical systems associated with the SWECS including all existing and proposed electrical connections.
  - (8) Manufacturer's specifications and installation and operation instructions or specific SWECS design information, including model and rotor diameter.
  - (9) Certification by a registered professional engineer that the tower design is sufficient to withstand wind load requirements for structure as defined by the International Building Code.
- C. General Performance Standards. A SWECS shall be permitted as a special use in all zoning districts subject to the following requirements:
- (1) Number. Only one (1) SWECS shall be permitted per property regardless of the number of dwelling units or tenants.
  - (2) Location.
    - (a) A SWECS shall be prohibited from being located in front of the building setback line or in front of the principal building on a property.
    - (b) SWECS setback shall comply with the yard areas established for principal structures for each zoning district.
    - (c) The SWECS shall be located such that its fall zone plus five (5) feet will be located entirely on the permitted property in the event of collapse or other structural failure.
    - (d) All SWECS shall be prohibited to be located in the view corridors established in (d) of this Section.
  - (3) Tower Construction. All towers for a SWECS shall be a single monopole type constructed without guy wires or ground anchors. Guyed towers and lattice towers are expressly prohibited. All towers shall be structurally designed to withstand 100mph winds and handle loads imparted.
  - (4) Height, Blade Length, Turbine Capacity. The total height of a SWECS shall be measured as the vertical distance from ground level to the tip of a wind generator blade when the tip is at its highest point. The SWECS shall comply with the following:

**TABLE 7.3: MAXIMUM HEIGHT, BLADE LENGTH, AND TURBINE CAPACITY BY LAND USE**

Use	Maximum Height	Maximum Blade Length	Maximum Nameplate Capacity
Single-Family Residential	35'	4'	1,000w
Two-Family Residential	35'	4'	1,500w
Multiple-Family Residential	40'	6'	3000w
Commercial	50'	8'	5 kW
Manufacturing	75'	10'	10 kW

- (5) Blades and Clearance. Protected blades shall be used if a SWECS is installed on a rooftop or if located within twelve (12) feet of a structure. A minimum vertical blade clearance of fifteen (15) feet shall be required from grade or rooftops.
- (6) Access. All ground mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access. The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of eight (8) feet above the ground.
- (7) Electrical Wires. SWECS including tower shall comply with all applicable state construction and electrical codes, and the National Electrical Code. All electrical wires associated with a SWECS, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to

the disconnect junction box, and the grounding wires shall be located underground. All wires and connections shall be wholly located on the subjects property, and in no case shall connections to multiple detached structures be permitted.

- (8) Lighting. A wind tower and generator shall not be artificially illuminated unless such lighting is required by the Federal Aviation Administration.
- (9) Appearance, Color, and Finish. The wind generator and tower shall remain painted or finished the color or finish that was originally applied by the manufacturer, unless approved in the building permit. Generally acceptable colors shall be muted or understated colors that are unobtrusive to surrounding properties, such as galvanized metal or earth tones.
- (10) Signs. All signs, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with a small wind energy system visible from any public road shall be prohibited.
- (11) Noise And Shadow Flicker
  - (a) Audible sound from a Wind Energy Facility shall not exceed twenty-five (25) dBA in residential districts or fifty (50) dBA in all other districts, as measured at the exterior of any occupied building on an adjacent or neighboring property. Methods for measuring and reporting acoustic emissions from Wind Turbines and the Wind Energy Facility shall be equal to or exceed the minimum standards for precision described in American Wind Energy Association Standard 2.1 - 1989 titled Procedures for the Measurement and Reporting of Acoustic Emissions from Wind Turbine Generation Systems Volume I: First Tier.
  - (b) Low Frequency Harmonics. The SWECS shall be designed to avoid emitting low frequency harmonics that can be disruptive to neighboring properties.
  - (c) The property owner and operator shall make reasonable efforts to minimize shadow flicker to any occupied building on an adjacent or neighboring property.
- (12) Utility notification and interconnection. SWECS that connect to the electric utility shall comply with the Illinois Distributed Generation Interconnection Standard.
- (13) Compliance with FAA Regulations: SWECS must comply with applicable FAA regulations, including any necessary approvals for installations close to airports/airstrips. If lighting is required by the FAA, a dual mode fixture/lamp shall be installed.
- (14) Required Safety Features
  - (a) All SWECS shall be designed with an automatic overspeed control to render the system inoperable when winds are blowing in excess of the speeds for which the machine is designed.
  - (b) All SWECS shall have a manually operable method to render the system inoperable in the event of a structural or mechanical failure of any part of the system including the automatic overspeed control.
  - (c) All SWECS shall be designed with an automatic control to render the system inoperable in case of loss of utility power to prevent the SWECS from supplying power to a de-energized electrical distribution system.
  - (d) Any SWECS thereof declared to be unsafe by the Code Enforcement Department by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures set forth in the City of Sterling Code of Ordinances.

- D. View Corridors Established. View Corridors as defined in Section 102-3 shall be maintained from the right-of-way lines of the following described roadways by land use in Table 7.4.

**TABLE 7.4: VIEW CORRIDORS TO BE MAINTAINED BY ROADWAY AND LAND USE**

Roadway	Use			
	One- and Two-Family	Multi-Family	Commercial	Industrial
Route 2/Lincolnway east of Freeport Road and west of Lynn Boulevard and River Road	25'	50'	100'	200'
Route 2/Lincolnway east of River Road and Lynn Boulevard	40'	50'	100'	200'
Locust Street/Route 40 north of Miller Road and south of 23 <sup>rd</sup> Street	25'	50'	100'	200'
Locust Street/Route 40 north of 23 <sup>rd</sup> Street	40'	50'	100'	200'
W. 4 <sup>th</sup> Street west of Maple Lane	40'	50'	100'	200'
W. 4 <sup>th</sup> Street west of Avenue M and east of Maple Lane	25'	50'	100'	200'
Lynn Boulevard/23 <sup>rd</sup> Street/River Road	40'	50'	100'	200'
Freeport Road north of Lincolnway/Route 2	50'	75'	100'	200'
Science Ridge Road/37 <sup>th</sup> Street	50'	75'	100'	200'